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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/750,820

01/05/2004

Yasutoshi Inoue

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RADER FISHMAN & GRAUER PLLC
LION BUILDING
1233 20TH STREET N.W., SUITE 501
WASHINGTON, DC 20036

EXAMINER

MERCEDES, DISMERY E

ART UNIT

PAPER NUMBER

2627

MAIL DATE

DELIVERY MODE

03/31/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/750,820	Applicant(s) INOUE ET AL.	
	Examiner DISMERY E. MERCEDES	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/4/2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5,9 and 12-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5 and 9 is/are rejected.
- 7) ☒ Claim(s) 12-17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1,5,9 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1,5,9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuri (US 6,473,273) in view of Kabayashi et al. (US 4,901,178).

As to Claim 5, Kikuri discloses a magnetic recording and reproducing apparatus for performing azimuth recording on a tape form recording medium by a plurality of recording heads, said system comprising a head system having a plurality of said recording heads, and a tape feeding means for feeding said tape form recording medium, wherein said head system comprises a first recording head including a plurality of magnetic gaps having a first azimuth angle (fig.6B H1), and a second recording head including a plurality of magnetic gaps having a second azimuth angle different from said first azimuth angle (fig.6B, H2); a positional relationship between said magnetic gaps is so determined that in relation to each magnetization pattern formed on said tape formed on said recording medium by said magnetic gaps of said first recording head, side edge portions in the formation direction of said patterns are overwritten by said magnetic gaps of said second recording

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head (figs.6B,7-8 wherein the tracks are overlapped by the magnetic gaps of the opposite head), wherein said first and second recording heads are thin-film heads and a single head chip constituting each said recording head is provided with a plurality of magnetic gaps and wherein said first and second recording heads are mounted on a rotary drum (fig.6A-B, and col.1, lines 22-33; col.2, line 63-col.3, line 5; col.3, lines 49-52 wherein thin film heads are mounted on a rotary drum and wherein using thin film heads in single chip structure is well known in the art), and each of said magnetization patterns formed on said recording medium is an inclined track (col.2, lines 13-36; col.4, lines 14-20 wherein magnetization patterns on the medium are inclined tracks).

Kikuiri fails to specifically disclose, wherein the height of the lower edge portion of the gap A1 is about the same as the height of a central portion of the gap B2 and the height of a lower edge portion of the gap A2 is about the same as the height of a central portion of the gap B1, and wherein said overwriting is conducted with such a positional relationship that a side edge portion of said magnetization pattern is the formation direction of said magnetization pattern formed by each said first magnetic gap of said first recording head coincides substantially with the center of each magnetization pattern formed by said second recording head.

However, Kobayashi et al. discloses a thin film magnetic head wherein the magnetic gaps are formed such that the height of the lower portion magnetic gaps G1 and G2 of thin film head I are centered with respected to gaps G3 and G4 of thin film head II (fig.11A-B and fig.27) and wherein they are overlapped therefore the overwriting is formed according to the heads positional relationship (col.1, lines 1-9). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement thin film heads with magnetic gaps with positional relationship as disclosed by Kobayashi the motivation being to improve the sliding contact properties of the head with the magnetic medium (col.8, lines 10-14).

As to Claim 1 has the same limitations as to those treated in the above rejection of claim 5, and are met by the references as discussed above

As to Claim 9 is a method claim drawn to the apparatus of claim 5 and is rejected for the same reasons of obviousness as set forth in the rejection of claim 5 above.

Allowable Subject Matter

4. Claims 12-17 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Watanabe et al. (US 6,014,291); Yamada et al. (US 5,912,780); Sato et al. (US 5,349,478); Arai et al. (US 4,539,615); Panish et al. (US 5,973,874); Hughes et al. (US 2002/0080519); Morisaki (US 5,023,731).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DISMERY E. MERCEDES whose telephone number is (571)272-7558. The examiner can normally be reached on Monday - Friday, from 9:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. E. M./
Examiner, Art Unit 2627

/HOA T NGUYEN/
Supervisory Patent Examiner, Art Unit 2627